UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Peakspeed, Inc.,	Civil File No. 0:20-cv-01630-JRT-BRT
Plaintiff,	**PLAINTIFF'S MEMORANDUM OF**
	LAW IN SUPPORT OF MOTION FOR
v.	**PRELIMINARY INJUNCTION**
Timothy Emerson,	
Defendant.	

INTRODUCTION

Plaintiff Peakspeed, Inc. ("Peakspeed") is a small startup that is developing a computer program called TrueView that uses special cloud-based processors known as FPGAs to correct distortions in aerial images (such as those captured by satellites and drones). Through a relationship and partnership with Xilinx, Inc. ("Xilinx") (the inventor of FGPAs), Peakspeed is piloting its technology with several companies and is on its way to become the leader for this technology in a multi-billion dollar industry, an industry fueled in large part by the defense and intelligence industries (who capture enormous amount of satellite and drone images that must be processed very quickly).

Before the Fourth of July holiday, Peakspeed's Chief Technology Officer, Defendant Timothy Emerson ("Emerson") resigned. Thereafter, he went into Peakspeed's source code for TrueView and attempted to change the copyright notices to EmersonAI, LLC—a company he claims to control and own. Emerson also blocked access to several servers containing TrueView source code and to Peakspeed's Amazon Web Services ("AWS") account. Emerson has also attempted to torpedo Peakspeed's

business and relationships. Emerson sent letters to Peakspeed and its employees accusing them of copyright infringement and threatening litigation. Emerson also threatened to "kill" any deals between Peakspeed and Xilinx.

Emerson's conduct must be enjoined. Neither Emerson (nor EmersonAI) can be the owner of the TrueView source code. Emerson is not the "author" of the source code as that term is used under the Copyright Act. Emerson wrote only about 10% of the source code—and even then, his contributions are not copyrightable—he contributed coding only for well-known trigonometric calculations and open source materials for memory management. The parties always intended for the source code to be owned by Peakspeed, and Peakspeed has re-written any contributions made by Emerson. Emerson's work on the TrueView source code was also done as a work for hire—he contributed to TrueView as an officer of Peakspeed, using Peakspeed's tools, assistants hired and paid for by Peakspeed, for the purpose of creating a program to be used by Peakspeed in its business. Moreover, even if Emerson were a joint author of the source code (which he is not), he still would have no right to interfere with Peakspeed's use of the source code.

Yet, Emerson does threaten to interfere with Peakspeed's use of the TrueView source code—with potentially disastrous consequences. Emerson's threat to cloud the ownership of TrueView threatens to deprive Peakspeed of its relationship with Xilinx at a crucial time. The market for Peakspeed's products is emerging and Peakspeed has a unique opportunity *now* to establish its reputation and market position. If its deals with Xilinx are "kill[ed]" as threatened by Emerson—Peakspeed will lose its opportunity

forever. For all these reasons, and those discussed below, Peakspeed respectfully

requests that the Court grant its motion for preliminary injunction.

<div align="center">**BACKGROUND**</div>

A. Peakspeed Is a High-Tech Startup that Is Working to Create Programs to Do Extremely Fast Processing of Satellite and Drone Images Using New Cloud-Based Technology.

Peakspeed is a recent startup company in the business of computer

programming— specifically it creates geospatial programs to be run on special computer

processors known as field programmable data arrays ("FPGAs"). Eaton Decl. ¶ 2.

Peakspeed's current program development focuses on creating programs to correct

distortions in images created through satellite or drone images. *Id.* Due to topography,

the tilt of the camera, and the shape of the earth, all aerial photographs have spatial

distortions. *Id.* ¶ 3. These distortions must be corrected to accurately determine the

location of an object in an image. *Id.* Correcting these distortions requires mathematical

calculations and, due to the orthogonal angle between the camera and ground, is called

"orthorectification." *Id.*

Because "orthorectification" is done using mathematical calculations it is

amenable to being done rapidly using a computer. *Id.* ¶ 4. Traditional computers and

computer chips—such as CPUs—have speed limitations due to the generic hardware that

is used. *Id.* In particular, the circuitry of CPUs is designed to be multi-purpose. The

speed of computations can be increased by designing a chip with circuitry for a specific

purpose. *Id.* This can be accomplished using an FPGA processor, the hardware of which

can be altered to serve a specific purpose. *Id.* As an example, assume that, to perform a

task, 1 billion multiplication calculations must take place. *Id.* A traditional CPU may have two multipliers, and therefore each multiplier must run 500 million calculations consecutively. FPGAs can be programmed to have many multipliers. *Id.* If, for example, an FPGA had 1,000 multipliers, it could run those multipliers concurrently and obtain a result 500 times faster than a traditional CPU. *Id.*

FPGAs, however, have not been commonly implemented for several reasons. *Id.* ¶ 5. First, the programming languages are very difficult to master. *Id.* This is because given "the very different programming model" of FPGA "where you're actually configuring the hardware," the programming for FPGAs "is challenging for developers used to higher level [i.e., more abstract] languages" used for CPUs. Mary Branscombe, *FPGAs and the New Era of Cloud-based 'Hardware Microservices*:*'* THE NEW STACK (Jun. 8, 2017 6:00 AM), https://thenewstack.io/developers-fpgas-cloud/. Accordingly, FPGA languages can take several years to learn. *Id.* Second, the deployment and maintenance of FPGAs is costly and complex. Eaton Decl. ¶ 5. Few companies have programmers that understand how to integrate and manage FPGAs in a computing environment. *Id.*

Recently, however, a proverbial "gold rush" towards FPGAs has been created by the availability of cloud-based FPGAs from Amazon Web Services ("AWS") at the beginning of 2018 and from Microsoft Azure in June 2020. *Id.* ¶ 6. Cloud-based FPGAs provide a solution to common problems. *Id.* ¶ 7. First, by having FPGAs in the cloud, AWS or Microsoft Azure are responsible for deployment and maintenance. *Id.* Second, by having FPGAs accessible to clients in the cloud, companies with developers versed in

FGPA languages can create programs that clients can access without need for any in-house FPGA fluency. *Id.* Peakspeed is one such company.

For startups seeking to develop programs for cloud-based FPGAs, like Peakspeed, Xilinx plays a crucial role in finding business opportunities and creating applications for clients. *Id.* ¶ 8. Xilinx designed the FPGAs and manufactures the corresponding FPGA boards used by major cloud service companies like AWS and Azure. *Id.* Xilinx has a symbiotic relationship with startups that create FPGA code. In order to help spur demand for FPGAs, Xilinx encourages development of useful programs that operate on Xilinx-made FPGAs that run in the cloud. *Id.* Xilinx does so by referring its clients with known needs to developers that specialize in those needs. *Id.*

B. A Peakspeed Team Develops Its TrueView Software—for Which Defendant Emerson Writes Only 10% of the Code.

Peakspeed was formed by Dave Eaton ("Eaton") in January 2020 in order to bring the faster speeds of FPGAs to the world of orthorectification. *See id.* ¶ 9. With the proliferation of satellites and drones, the demand for orthorectification is extraordinary—an estimated $10-$15 billion market for software alone. *Id.* This is because producers of data (satellite and drone owners) must orthorectify all their images in order to produce accurate, usable images. *Id.* Given the amount of data produced—terabytes of data every day for a single customer—increased processing speed results in a significant cost savings. *Id.* In addition, much of the data is used by the intelligence and defense industries—industries where time is of the essence: a few minutes, or even seconds, can be the difference between life and death. *Id.* Accordingly, Eaton recognized a significant

opportunity to use cloud-based FPGAs to increase processing speed for aerial images and formed Peakspeed. Eaton Decl. ¶ 9.

To help develop products for Peakspeed, Eaton hired Defendant Emerson to serve as Chief Technology Officer ("CTO"). Id. Eaton and Emerson had worked together previously at a company called DirectStream, which was also in the business of using (non-cloud) FPGAs for satellite image processing. *Id.* ¶ 11. Emerson is a former consultant who assisted with program development. Initially, Peakspeed developed ideas for two products—an orthorectification product named TrueView, and an artificial intelligence products named IdentifAI (which would be able to identify the number of objects of interest, e.g., cars, ships, in an image). *Id.* Emerson is a former consultant and assisted with program development by writing pieces of code. *Id.* ¶ 12. However, Emerson does not have the expertise to serve as the architect for a full-production program. *Id.* Because Emerson's expertise and experience is in consulting and not in building, testing, deploying and supporting a complete software product, Peakspeed brought on additional talent—specifically Vice President of Software Engineering Dave Zimmerman ("Zimmerman") and Chief Geospatial Scientist Oscar Kramer ("Kramer")— to develop the software and serve as the architects for the TrueView program and authors of the code. *Id.* Zimmerman joined Peakspeed in January 2020, and Kramer joined in February 2020. *Id.* ¶ 13. To date, Peakspeed has developed pilot-level source code only for TrueView. *Id.* This code can be implemented on a pilot basis in response to requests for proposals from potential clients. *Id.*

TrueView consists of three essential software components. Eaton Decl. ¶ 14. The first component runs a CPU driver that preprocesses the image data, communicates with the FPGA, and process the output. *Id.* The second component, an FPGA component, reads in the memory and performs the classical orthorectification mathematics to produce the output image. *Id.* The third component, infrastructure code, builds, tests, validates, and deploys working software to the cloud. Kramer was solely responsible for the first component, Kramer and Emerson co-created the FPGA component, and Zimmerman lead the infrastructure component and managed the overall delivery of the effort. *Id.*

For his part, Emerson worked on coding one component—programming FPGAs to carry out the trigonometric calculations needed for orthorectification. *Id.* ¶ 15. The calculations are trigonometric in nature, well known in the industry, and code for CPU-based versions of these calculations exists in the public domain. *Id.* Therefore, Emerson's primary task for the TrueView product was to convert the well-known code for the orthrectification trigonometric calculations into the equivalent FPGA code using FGPA software development tools. *Id.* Emerson had skills to write prototype and demonstration code, but is neither skilled nor experienced at architecting software fit for production. *Id.* ¶ 16. The FPGAs offered on the AWS-cloud used FPGA boards manufactured by Xilinx, and therefore Emerson relied heavily on Xilinx sample code in the public domain to create a demo. *Id.* Eventually, to assist Emerson in creating a useable, marketable product, Peakspeed hired two programmers well versed in Xilnx tools and FPGA programming—Dave Caliga and Pradeep Thiruchelvam. *Id.*

C. Emerson Resigns from Peakspeed, Attempts to Change the Copyright to TrueView, and Threatens to Interfere with Peakspeed's Most Valuable Business Relationship.

On July 1, 2020, Emerson abruptly announced his resignation from Peakspeed. Eaton Decl. ¶ 18. On July 3, 2020 (a national holiday to observe the Fourth of July), Emerson logged onto DevOps—the system in which Peakspeed's TrueView source code is maintained. *Id.* ¶ 19. He then began changing the source code copyright notices from Peakspeed to EmersonAI. *Id.* This included code that Emerson wrote, as well as code that other programmers wrote. *Id.* Emerson changed the copyrights on 230 files, but only worked on fifteen. *Id.* Emerson then logged onto Peakspeed's AWS account and changed the account assignment from Peakspeed to EmersonAI. *Id.* ¶ 20. He also locked out all of Peakspeed's employees. *Id.* Locking Peakspeed's employees out of their AWS account deprived Peakspeed of a development server rented from AWS and a $20,000 AWS credit that was awarded to Peakspeed. *Id.* Emerson also locked Peakspeed employees out of two development servers that he co-owned with Eaton's son that were used by Peakspeed—retaining copies of the Peakspeed source code for himself. *Id.*

As a result of Emerson's conduct, Peakspeed had to open a new AWS account, rent new servers, and rebuild its entire development environment—losing weeks of work in the rebuilding process. *Id.* ¶ 21. To avoid any copyright disputes, Peakspeed programmers also began removing code written by Emerson and re-writing the code from scratch. *Id.*

Nonetheless, Emerson has begun to claim ownership to the TrueView source code. In particular, Emerson sent letters to Eaton, Kramer, and Peakspeed's other employees

accusing them of copyright infringement and other intellectual property violations. Eaton Decl. ¶ 22, Exs. 1-3. Emerson also contacted Xilinx and informed Xilinx that there was a "misunderstanding" between him and Peakspeed with respect to the ownership of the Peakspeed products. *Id.* ¶ 23. In response, Xilinx informed Peakspeed that a dispute could cause a problem between Xilinx and Peakspeed. *Id.*

The relationship with Xilinx is crucial to Peakspeed and TrueView's future success. *Id.* ¶ 24. Xilinx has assisted, or is currently assisting, Peakspeed in obtaining ten to twelve pilot projects (between proposal stage and completion) and also committed to sharing costs of development for these pilot projects. *Id.* This is just the tip of the iceberg for business opportunities. *Id.* Given the emerging nature of the market for cloud-based FPGA programs, successful pilot programs will lead to additional referrals and also establish Peakspeed as the leader in cloud-based FPGA geospatial programming. *Id.* Xilinx will not refer clients to Peakspeed or proceed with pilot projects if there is a dispute as to whether Peakspeed owns the programs it will be piloting in the first place. *Id.* Knowing this, Emerson also sent a text message to Eaton stating that, "if either . . . Dave Eaton or Peakspeed brings a lawsuit against EmersonAI, that will kill any business deals with Xilinx, because they won't do business with either EmersonAI or Peakspeed." *Id.* Ex. 4.

ARGUMENT

A. Standard of Review

A plaintiff seeking a preliminary injunction must establish (1) that the plaintiff is likely to succeed on the merits; (2) that the plaintiff is likely to suffer irreparable harm in

the absence of preliminary relief; (3) that the balance of equities tips in the plaintiff's favor, and (4) that an injunction is in the public interest. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008); *Dataphase Sys., Inc. v. C.L. Sys., Inc.*, 640 F.2d 109, 114 (8th Cir. 1981). Under Eighth Circuit law, no single factor is dispositive, but each must be considered to determine whether the balance of equities weighs toward granting the injunction. *Dataphase,* 640 F.2d at 113.

B. Peakspeed Is Likely to Succeed on the Merits of Its Claims

1. Peakspeed Is Likely to Demonstrate It Is the Sole Owner of the TrueView Copyright

Peakspeed—not Emerson and certainly not EmersonAI—is the owner of the copyright to the TrueView source code. Source code is a form of "literary work" protectable under the Copyright Act. *Apple Comput., Inc. v. Franklin Comput. Corp.*, 714 F.2d 1240, 1249 (3d Cir. 1983). Under the Copyright Act, copyright ownerships "vests initially in the author" of a work. 17 U.S.C. § 201(a). "As a general rule, the author is the party who actually creates the work, that is, the person who translates an idea into a fixed, tangible expression entitled to copyright protection." *Cmty. for Creative Non-Violence v. Reid*, 490 U.S. 730, 737 (1989). "The [Copyright] Act carves out an important exception, however, for 'works made for hire,'" for which the "'the employer or other person for whom the work was prepared is considered the author' and owns the copyright." *Id.*

EmersonAI has had no relationship with Peakspeed and, as an LLC, cannot have fixed source code from an idea into a tangible expression. Emerson did write portions of

10

a previous version of TrueView source code—evidently leading him to view himself as a joint author of the code. Emerson cannot be a joint author of the TrueView code, however, because (1) his contribution to the code is not independently copyrightable and he did not exercise any creative control over TrueView, (2) his contributions have been removed, and (3) his work on the TrueView source code was a "work for hire."

a. Emerson's Contributions to the TrueView Source Code Are Not Independently Copyrightable

Not every person that contributes to a copyrightable work becomes a joint author of that work. The Eighth Circuit has not articulated the elements for determining joint authorship, but district courts in the Eighth Circuit have followed the majority of Circuits in requiring, *at least*: "(1) independently copyrightable contributions by two or more authors; and (2) the authors intended their contributions to be merged into inseparable or interdependent parts of a unitary whole." *Really Big Coloring Books, Inc. v. Delta Dental Ins. Co.*, No. 4:18CV622 JCH, 2018 U.S. Dist. LEXIS 144225, at *7 (E.D. Mo. Aug. 24, 2018). *See Two Palms Software, Inc. v. Worldwide Freight Mgmt. LLC*, No. 4:10-cv-1045(CEJ), 2012 U.S. Dist. LEXIS 88106, at *5–6 (E.D. Mo. June 26, 2012); *see also Cody Foster & Co. v. Urban Outfitters, Inc.*, No. 8:14-CV-80, 2015 U.S. Dist. LEXIS 189532, at *10 & n.4 (D. Neb. Sep. 25, 2015) (collecting cases showing majority rule).

Copyright protects "original works of authorship fixed in any tangible medium of expression." 17 U.S.C. § 102(a). "Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other

works), and that it possesses at least some minimal degree of creativity." *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991). "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, *regardless of the form in which it is described*, explained, illustrated, or embodied in such work." 17 U.S.C. § 102(b) (emphasis added).

Therefore, it is fundamental that mathematical formulas and equations are not entitled to copyright protection, regardless of form. *Baker v. Selden*, 101 U.S. 99, 103 (1879) ("The copyright of a work on mathematical science cannot give to the author an exclusive right to the methods of operation which he propounds, or to the diagrams which he employs to explain them, so as to prevent an engineer from using them whenever occasion requires."). Here, Emerson's contributions to the TrueView code are not themselves copyrightable.

> *(i)*   *Emerson's Contribution to TrueView Code Consists of Mathematical Formulas and Is Not Independently Copyrightable*

In particular, Emerson's work on TrueView consisted of taking known trigonometric calculations needed for orthorectification and writing the code for these calculations for FPGAs. Eaton Decl. ¶ 15. These trigonometric calculations are not themselves copyrightable—even if Emerson had to expend some time writing the FGPA code for them. The amount of discretion a programmer has in writing code for such calculations is limited—primarily relating to choosing the order of operations, methods for accessing memory, variable names, and optimizing efficiency. *Id.* However,

mathematical formulas are not copyrightable material regardless of form in which they are described. 17 U.S.C. § 102(b). For instance, the Pythagorean theorem is not copyrightable regardless of whether a programmer chooses to express it as $(a^2 + b^2 = c^2)$ or $(x^2 + y^2 = z^2)$.

Moreover, the code written by Emerson was not original to Emerson. The memory access code written by Emerson were drawn directly from Xilinx standard tools and known efficient structures. Eaton Decl. ¶ 15. For his trigonometric calculations, Emerson used existing CPU-based code as a starting point before using Xilinx tools to convert the code for use with FPGAs. *Id.* ¶ 15. Emerson also received assistance from other Peakspeed programmers well versed in the Xilinx's tools and FPGA programming. *Id.* ¶ 16. Accordingly, Emerson's contributions are neither original nor authorship.

On this point, *Woods v. Resnick*, 725 F. Supp. 2d 809 (W.D. Wis. 2010) is instructive. In *Woods*, one founder of a business (Resnick) had experience in the automobile sales industry and had an idea for a finance and insurance management system. *Id.* at 813. Resnick asked his friend (Woods) to help develop a computer program for his finance and insurance management system, and Woods wrote the source code for such a program. *Id.* at 814-815. After a falling out, Woods sued Resnick seeking a declaration that Woods was the owner of the copyright to the source code. Resnick argued that he was a joint author—Resnick had written code or copy and pasted Excel spreadsheet information into the code to perform calculations central to the function of the software. *Id.* at 820. These calculations related to important items such as sale price and balance due, finance charges, principal and interest payments, lease

13

payments and finance reserves. *Id.* The Court noted that "[t]he underlying finance formulas, whether categorized as business logic, algorithms or math equations, cannot themselves be copyrighted." *Id.* The court held that since there were only one or a few ways of expressing these calculations on Excel, they were not copyrightable material and Resnick was not a joint author. *Id.* at 821.

The result should be the same here as well. Just like Resnick contributed only financial calculations to the source code in *Woods*, Emerson contributed trigonometric calculations to the source code here. Just like Resnick's expression of those calculations was limited due to the functional demands of Excel, Emerson's expression of the trigonometric calculations is limited to the functional demands of FPGAs. Neither contribution is independently entitled to copyright protection, and therefore neither Resnick nor Emerson is a joint author.

> (ii)   *Any Contributions by Emerson Have Been Re-Written in Any Event.*

Not only did Emerson fail to contribute any copyrightable material in the first place, but his contributions have been eliminated from the TrueView source code. After Emerson attempted to alter the copyright notices on the TrueView source code—Peakspeed began deleting all portions of code and Peakspeed programmers are rewriting the code from scratch. Eaton Decl. ¶ 21. These programmers exercised their own knowledge of Xilinx code to write the instructions anew—substituting their own judgement for discretionary portions of the code such as order of operations, variable codes, memory access, and the like. *Id.* Accordingly, the only aspects of the replacement

code that will resemble Emerson's code are the trigonometric formulas themselves—

which can only be expressed in a few ways using the Xilinx coding tools (variations will

come only in labelling such as variable names or order of operations). *Id.* In such

circumstances, Emerson cannot claim any ownership interest in the code. *Cf. Comput.*

Assocs. Int'l v. Altai, 982 F.2d 693, 714–15 (2d Cir. 1992) (holding that new version of

program, with copied source code re-written, did not infringe copyright of copied source

code because similarities were the result of information from the public domain and

functional demands).

> ### (iii) *Emerson's Insubstantial Contribution of 10% of the TrueView Source Code Is Insufficient for Authorship*

In addition, Emerson's small contribution, one of many contributors, cannot

establish him as a joint author. Courts have come up with several standards for

determining the intent element of the joint authorship test. The Second and Seventh

Circuits require that the putative joint author show not merely an intent to merge the

works into an inseparable or interdependent whole, but rather an intent to be joint

authors. *Really Big Coloring Books*, 2018 U.S. Dist. LEXIS 144225 at *7 (citing

Childress v. Taylor, 945 F.2d 500, 507-08 (2d Cir. 1991); *Erickson v. Trinity Theatre,*

Inc., 13 F.3d 1061, 1068-69 (7th Cir. 1994)). Other Circuits require merely an intent to

merge the works, but use other means to prevent an insubstantial contributor from

becoming a joint author. For instance, the Ninth Circuit[1] requires that an author be the

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[1] Copyright practitioners, observers, and academics generally consider law from the Second and Ninth Circuits to be the most persuasive due to the volume of copyright cases handled in those two circuits every year. The geography of the two circuits

"master mind" behind a work—the person with "creative control"—notwithstanding an otherwise copyrightable contribution by someone else. *Aalmuhammed v. Lee*, 202 F.3d 1227, 1232–33 (9th Cir. 2000) (holding that person who wrote Malcolm X's Hajj pilgrimage scenes was not author of entire film, *Malcolm X*).

Under either test, Emerson was not intended to be a joint author. Under the Second and Seventh Circuit's tests, Peakspeed plainly did not intend for Emerson to be a joint author. Before Emerson's resignation from Peakspeed and unilateral action in changing the copyright notices, the TrueView source code *expressly* stated that the copyright of the source code belonged to Peakspeed. *See* Eaton Decl. ¶ 19. Under the Ninth Circuit test, Emerson fares no better. Emerson was not a "master mind" behind the TrueView code. Emerson wrote only about 10% of the TrueView code. *Id.* ¶ 15. The master minds of the TrueView program are Kramer and Zimmerman. Id. ¶¶ 12-14. Indeed, Emerson does not have the technical knowledge to be the master mind or exercise creative control of TrueView. To Peakspeed's knowledge, Emerson has never designed or written a full production software program (as opposed to merely a demo) and had no knowledge of coding cloud-based applications. *Id.* ¶ 12. Emerson's task was merely to carry out the writing of the mathematical portion of the code for FPGAs at the direction of others. *Id.* ¶¶ 14-15; *see Kyjen Co., Inc. v. Vo-Toys, Inc.*, 223 F. Supp. 2d 1065, 1068 (C.D. Cal. 2002) ("[T]he creator of a work at another's direction, without contributing intellectual modification, is not an author.").

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includes Hollywood, Broadway, Silicon Valley, and much of the publishing, television, and music industries.

b. Emerson Also Cannot Be Co-Owner of TrueView Source Code Copyright Because His Contributions Were a Work for Hire.

Significantly, *even if* Emerson made an independently copyrightable contribution and was intended to be a joint author, he cannot be a co-owner of the copyright to the TrueView source code because his writing of the portions of code was a work for hire. "In determining whether a hired party is an employee under the general common law of agency, we consider the hiring party's right to control the manner and means by which the product is accomplished." *Cmty. for Creative Non-Violence*, 490 U.S. at 751-52. The factors relevant to the inquiry are:

> (1) the source of the instrumentalities and tools;
>
> (2) the location of the work;
>
> (3) the duration of the relationship between the parties;
>
> (4) whether the hiring party has the right to assign additional projects to the hired party;
>
> (5) the extent of the hired party's discretion over when and how long to work;
>
> (6) the method of payment;
>
> (7) the hired party's role in hiring and paying assistants;
>
> (8) whether the work is part of the regular business of the hiring party;
>
> (9) whether the hiring party is in business;
>
> (10) the provision of employee benefits; and
>
> (11) the tax treatment of the hired party.

Id. The weight of these factors favors finding Emerson to be an employee of Peakspeed.

The instrumentalities and tools used by Emerson were largely obtained by Peakspeed. Eaton Decl. ¶ 17. The tools used by Emerson were licensed and paid for by Peakspeed. *Id.* Peakspeed paid for tool packages from Microsoft and leveraged its relationship with ESRI and Xilinx to obtain additional technical assistance for Emerson. *Id.* Peakspeed also paid for an AWS account and rented a development server from AWS for Emerson to use along with other programmers. *Id.* Peakspeed also opened and maintained an account with Microsoft Azure. *Id.* Peakspeed also paid for Microsoft's DevOps program to serve as the location of the source code written by Emerson and other programmers. *Id.* Moreover, while each Peakspeed employee worked out of his own home from his own workstation—the location of the work was network-based systems paid for and provided by Peakspeed. *Id.*

The duration of the relationship, until Emerson resigned, was to be indefinite. *Id.* ¶ 10. Emerson was the Chief Technology Officer of Peakspeed. *Id.* He was not a contractor hired on a temporary basis. *Id.* Peakspeed could assign him any projects without limit—Emerson was not hired on a per project basis. *Id.* Instead he was paid a salary by Peakspeed from Peakspeed's business checking account. *Id.* Peakspeed was also responsible for both hiring and paying Emerson's assistants. *Id.* ¶¶ 10, 16. Peakspeed hired several assistant programmers. *Id.* All of Emerson's assistants were paid directly by Peakspeed. *Id.* Peakspeed had final decision-making authority of the assistants that would be hired. *Id.*

Peakspeed is in business, and Emerson's work was part of Peakspeed's regular business. Peakspeed is in the business of developing cloud-based FPGA

orthorectification software. Emerson's work was part of that core business—as discussed

above Emerson wrote FGPA code for the trigonometric calculations needed for

orthorectification. Accordingly, factors (1)-(9) all favor a finding that Emerson was an

employee of Peakspeed.

The only factors that do not favor a finding Emerson was an employee are factors

(10) and (11)—Emerson did not receive a W2 and did not receive employee benefits.

However, no one factor is dispositive—and the weight of the factors clearly show that

Emerson—an officer of the company—was an employee. Accordingly, even if he was a

joint author of the TrueView source code (which he was not), Peakspeed still maintains

the ownership of the copyright of the TrueView source code under the work for hire

doctrine.

2. Peakspeed Is Likely to Succeed in Demonstrating Its Right to Use the TrueView Source Code

Significantly, even if Emerson had some ownership interest in the TrueView

source code—he still would not have the right to interfere with Peakspeed's use of the

TrueView program for pilot programs or interfere with Peakspeed's relationship with

Xilinx. Emerson wrote only 10% of the prior TrueView source code—assuming

arguendo that this gives him some ownership interest in the copyright, at most he is a

joint author (as opposed to sole author) with Peakspeed and/or its other programmers.   It

is axiomatic, however, that "joint authors . . . have no right to interfere with a co-author's

use of the copyrighted work." *16 Casa Duse, LLC v. Merkin*, 791 F.3d 247, 259 (2d Cir.

2015) (*citing Childress*, 945 F.2d at 508).

Yet, this interference with Peakspeed's use of TrueView is precisely what

Emerson is attempting to do. First, he attempted to change the copyright of the entire

code—including code for which he had no involvement such as the cloud-

implementation code or CPU-based coding—to the name of EmersonAI. Eaton Decl. ¶

19. Second, he has attempted to interfere with Peakspeed's use of the code by informing

Xilinx that there is a "misunderstanding," and threatening to kill any deal with Xilinx—

all while simultaneously sending correspondence to Peakspeed and its employees

claiming that their use of TrueView constitutes copyright infringement. *Id.* ¶¶ 22-23, 25,

Exs. 1-4.

Under no circumstances can Emerson lawfully claim the ability to stop

Peakspeed's sale and use of TrueView. Therefore, his conduct in doing so, must be

enjoined.

3. Peakspeed Likely to Prevail on Computer Fraud and Abuse Act and Conversion Claims

Emerson's actions locking Peakspeed employees out of Peakspeed's servers and

AWS account is additional misconduct that forms the basis of two claims for which

Peakspeed is likely to prevail. First, Emerson's conduct is a violation of the Computer

Fraud and Abuse Act ("CFAA"). The CFAA provides a cause of action against one who:

> [K]nowingly and with intent to defraud, accesses a protected computer
> without authorization, or exceeds authorized access, and by means of such
> conduct furthers the intended fraud and obtains anything of value, unless
> the object of the fraud and the thing obtained consists only of the use of the
> computer and the value of such use is not more than $5,000 in any 1-year
> period.

18 U.S.C. § 1030(a)(4).

The Peakspeed servers are "protected computers"—the servers are data processing devices that affect interstate commerce. 18 U.S.C. § 1030(e)(1)–(2). In accessing the computers after his resignation, Emerson accessed the serves without authorization. *Cloudpath Networks v. Securew2 B.V.*, 157 F. Supp. 3d 961, 984 (D. Colo. 2016); *Estes Forwarding Worldwide LLC v. Cuellar*, 239 F. Supp. 3d 918, 920, 926 (E.D. Va. 2017); *Coll Builders Supply, Inc. v. Velez*, No. 6:17-cv-933-Orl-40DCI, 2017 U.S. Dist. LEXIS 151257, at *24–25 (M.D. Fla. Aug. 31, 2017). In addition, by blocking Peakspeed employees out of the servers, Emerson exceeded whatever authorization he had—he was not authorized to change the access of other employees. *United States v. Middleton*, 231 F.3d 1207, 1209 (9th Cir. 2000); *Wit Walchi Innovation Techs., GmbH v. Westrick*, No. 12-CIV-20072-COHN/SELTZER, 2012 U.S. Dist. LEXIS 1847, at *2-3 (S.D. Fla. Jan. 6, 2012); *Denarii Sys., LLC v. Tellez*, No. 11-22149-CIV, 2011 U.S. Dist. LEXIS 167457, at *19-20 (S.D. Fla. Oct. 14, 2011). Emerson's access was in furtherance of a fraudulent scheme—he attempted to change the copyright notices to the TrueView source code and did change the assignment of the AWS account. In doing so, he obtained a $20,000 AWS credit.

Second, Emerson's changing the access to the AWS account also constitutes conversion of the $20,000 credit. Conversion is "an act of willful interference with a chattel, done without lawful justification, by which any person entitled thereto is deprived of use and possession." *Larson v. Archer-Daniels-Midland Co.*, 32 N.W.2d 649, 650 (Minn. 1948). By changing the account, Peakspeed employees can no longer access the credit. Therefore, Peakspeed has been deprived of the use and possession of the credit.

Emerson intentionally changed the account and has no lawful justification for his actions.

Therefore, Peakspeed is likely to prevail on the merits of its CFAA and conversion

claims.

C. Peakspeed Will Be Irreparably Harmed Without an Injunction.

A continuing dispute concerning the use and ownership of TrueView will

irreparably harm Peakspeed. "Irreparable harm occurs when a party has no adequate

remedy at law, typically because its injuries cannot be fully compensated through an

award of damages." *Rogers Grp., Inc. v. City of Fayetteville*, 629 F.3d 784, 789 (8th Cir.

2010) (internal quotations omitted). "Loss of intangible assets such as reputation and

goodwill can constitute irreparable injury." *Med. Shoppe Int'l, Inc. v. S.B.S. Pill Dr., Inc.*,

336 F.3d 801, 805 (8th Cir. 2003) (internal quotations omitted). Loss of business

opportunities is also a valid ground on which to find irreparable harm. *Aria Diagnostics,*

Inc. v. Sequenom, Inc., 726 F.3d 1296, 1304 (Fed. Cir. 2013). Loss of market position

can likewise constitute irreparable harm. *Allan Block Corp. v. E. Dillon & Co.*, No. 04-

3511 (JNE/JGL), 2005 U.S. Dist. LEXIS 13566, at *22 (D. Minn. July 1, 2005)

The market for cloud-based FPGA orthorectification software is in its infancy.

Eaton Decl. ¶ 27. Currently, the demand for orthorectification is met by CPU-based

software, and it was only with the advent of cloud-based FPGAs, which itself is a recent

phenomenon, that a market for FGPA orthorectification became possible. *Id.*

Accordingly, the ability for a company to establish itself as a leader, incumbent, or first

mover is currently a wide-open business opportunity. *Id.* The leader that emerges will

garner a reputation for innovation by offering the first widely-used software in this space. *Id.*

Peakspeed has invested the last six months of time in becoming that incumbent with a reputation for innovation. Eaton ¶ 28. Through its efforts, Peakspeed has established good will with Xilinx and a reputation with Xilinx as a reliable provider of FPGA-based geospatial programs. *Id.* This relationship with Xilinx has led to pilot opportunities for Peakspeed, and even Xilinx's investment in those same opportunities. By obtaining pilot opportunities, Peakspeed in one step closer to establishing itself as the incumbent in the industry. *Id.*

Now, however, Emerson threatens to devastate Peakspeed's entire business: the pilot opportunities and Peakspeed's entire relationship with Xilinx. Emerson's threats are not veiled or couched but explicit: "[I]f either . . . Dave Eaton or Peakspeed brings a lawsuit against EmersonAI, that will *kill any business deals with Xilinx*, because they won't do business with either EmersonAI or Peakspeed." *Id.* Ex. 4 (emphasis added). Obviously, Xilinx will not refer Peakspeed to clients, and clients would not act on any referrals, if Peakspeed does not have the ability to license the TrueView software.

Without any referrals, Peakspeed will lose the opportunity to establish itself as a leader and innovator in the marketplace. An ownership dispute will also tarnish TrueView's good will and reputation with Xilinx. Indeed, Xilinx is already asking Peakspeed whether the "misunderstanding" with Emerson is will cause a problem. *Id.* ¶ 23. To make matters worse, Emerson's misconduct is also hampering Peakspeed's ability to perform its business—by locking Peakspeed out of its AWS account, Emerson

is causing Peakspeed to lose valuable development time to rebuild its development environment and re-do other work. *Id.* ¶ 20.

Emerson's continued possession of the Peakspeed's source code also presents the problem that Emerson will attempt to use that code to compete against Peakspeed or publicize the code to a Peakspeed competitor. *Id.* Enabling competitors to use the TrueView Code to compete against Peakspeed will further deprive Peakspeed of business opportunities and the ability to establish itself as the first-mover in an emerging market.

Significantly, all of this harm is intangible in nature and cannot be adequately remedied with monetary damages after a trial on the merits. Reputational harm and injury to good will are intangible in nature—while monetary damages can be paid, they cannot restore a party's relationship (such as the relationship Peakspeed has with Xilinx). Similarly, the opportunity to be the leader or first-mover in the market has many intangible benefits—from attracting investors, to increased customer good will, to establishing a technology as the incumbent technology for future development. The simple payment of monetary damages can never adequately compensate a company that has lost the opportunity to position itself as a leader or first mover in the marketplace. Accordingly, injunctive relief is warranted.

D. Balance of the Harms Favor Injunctive Relief

The balance of harms also favors an injunction. In contrast to the irreparable harm that Peakspeed will suffer without an injunction (discussed above), Emerson will not suffer any harm from the issuance of an injunction. Emerson would merely be prohibited from doing what he cannot lawfully do in any event—interfere with Peakspeed's use of

the TrueView source code. No harm can come to Emerson from refraining from interfering with Peakspeed's business. *See Conroy v. Marianne's Roofing Co. Ltd. Liab. Co.*, No. 18-cv-436 (JRT/SER), 2018 U.S. Dist. LEXIS 53392, at *10 (D. Minn. Mar. 15, 2018) ("Granting a preliminary injunction would require [Defendant] to follow the law . . . which it is already required to do. Therefore, there is no harm to [Defendant] by imposing this requirement."). The injunction will also require Emerson to return his copies of the source code—to which he has no interest—and return Peakspeed's access of its AWS account. Emerson has no right to either, and can suffer no cognizable harm from returning them to their rightful owner—Peakspeed. *See Vendavo, Inc. v. Long*, 397 F. Supp. 3d 1115, 1145 (N.D. Ill. 2019) ("[W]here the injunctive relief sought primarily focuses on prohibiting a defendant from using information he should not have taken in the first place, the balance of harms weighs heavily in favor of granting an injunction.").

E. Public Interest Favors Injunctive Relief

The public interest favors fair competition and enforcement of intellectual property rights. *Control Data Sys. v. Infoware, Inc.*, 903 F. Supp. 1316, 1326 (D. Minn. 1995) ("the public interest is furthered by enforcing copyright laws"). Therefore, an injunction will serve the public interest. The public interest will also be served by enabling Peakspeed to continue its pilot programs and work towards development of a faster orthorectification software—this will benefit the defense and intelligence industries, and in turn provide for the safety of the American public. *See NRDC v. Evans*, 232 F. Supp. 2d 1003, 1054 (N.D. Cal. 2002) ("the public has a compelling interest in protecting national security").

F. Bond Should Be Minimal

District courts have broad discretion in determining the amount of a bond to secure a preliminary injunction. *Hill v. Xyquad, Inc.*, 939 F.2d 627, 632 (8th Cir. 1991). *See Doctor John's, Inc. v. City of Sioux City*, 305 F. Supp. 2d 1022, 1043 (N.D. Iowa 2004) (waiving bond requirement as it was unclear what monetary damages could be incurred by defendant as the result of an "improvident injunction" and because defendant had not pointed to any evidence supporting that it would suffer compensable economic effects). Because the potential harm to Emerson is minimal, the bond should be minimal as well, and security in the amount of $5,000.00 is sufficient.

CONCLUSION

For the reasons, Peakspeed respectfully requests that its motion for preliminary injunction be granted.

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